查询TLAU1008A(T05)供应商

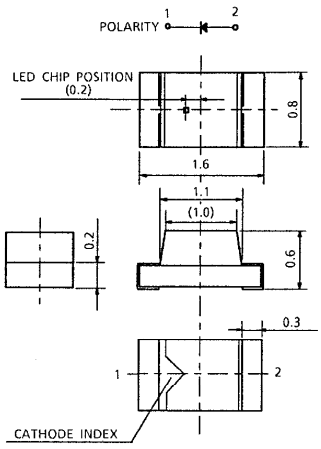


TOSHIBA LED LAMP

# TLSU1008A (T05), TLOU1008A (T05), TLAU1008A (T05) TLYU1008A (T05), TLGU1008A (T05), TLPGU1008A (T05)

PANEL CIRCUIT INDICATOR

Unit in mm




TOLERANCE : ±0.1 mm

1. CATHODE
2. ANODE

| | |
|---|---|
| JEDEC | — |
| EIAJ | — |
| TOSHIBA | — |

Weight : 1.3 mg

- 1.6 × 0.8 × 0.6 mm (L × W × H)
  TL□U1008A (T05) Series
- InGaAℓP LED
- It can be manufactured high-luminosity of equipment or reduce of electric power consumption by change in the high-luminosity LED from general-luminosity one.
- Colors : Red, Orange, Amber, Yellow, Green, Pure green
- Since the products are only 0.6 mm thick, they are suitable for use in thin equipment.
- Incorporates opaque diffusing resin.
  Good light diffusion-ideal for backlighting
- Can be mounted using surface mounter.
- Reflow soldering is possible.
- Standard embossed taping
  2 mm pitch : T05 (8000 pcs / reel)
- Mounting has been made more efficient, to decrease a change of reel and reducing the number of finished articles which need be discarded.
- Applications : As backlighting source for battery-powered equipment
  As pilot light for compact equipment
  In low-power electronic equipment, etc.

LINE-UP

| PRODUCT NAME | COLOR | MATERIAL |
|---|---|---|
| TLSU1008A | Red | InGaAℓP |
| TLOU1008A | Orange | InGaAℓP |
| TLAU1008A | Amber | InGaAℓP |
| TLYU1008A | Yellow | InGaAℓP |
| TLGU1008A | Green | InGaAℓP |
| TLPGU1008A | Pure Green | InGaAℓP |

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- The information contained herein is subject to change without notice.

MAXIMUM RATINGS (Ta = 25°C)

| PRODUCT NAME | FORWARD CURRENT (DC) $I_F$ (mA) | REVERSE VOLTAGE $V_R$ (V) | POWER DISSIPATION $P_D$ (mW) | OPERATION TEMPERATURE $T_{opr}$ (°C) | STORAGE TEMPERATURE $T_{stg}$ (°C) |
|---|---|---|---|---|---|
| TLSU1008A | 25 | 4 | 60 | −30~85 | −30~85 |
| TLOU1008A | | | 62.5 | | |
| TLAU1008A | | | 62.5 | | |
| TLYU1008A | | | 62.5 | | |
| TLGU1008A | | | 62.5 | | |
| TLPGU1008A | | | 62.5 | | |

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| PRODUCT NAME | FORWARD VOLTAGE $V_F$ | | | | REVERSE CURRENT $I_R$ | |
|---|---|---|---|---|---|---|
| | MIN | TYP. | MAX | $I_F$ | MAX | $V_R$ |
| TLSU1008A | — | 2.0 | 2.4 | 20 | 50 | 4 |
| TLOU1008A | — | 2.1 | 2.5 | | | |
| TLAU1008A | — | 2.1 | 2.5 | | | |
| TLYU1008A | — | 2.1 | 2.5 | | | |
| TLGU1008A | — | 2.1 | 2.5 | | | |
| TLPGU1008A | — | 2.1 | 2.5 | | | |
| UNIT | V | | | mA | μA | V |

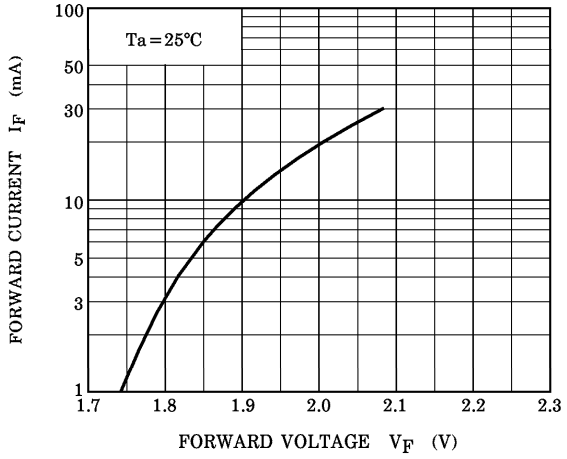
OPTICAL CHARACTERISTICS (Ta = 25°C)

| PRODUCT NAME | LUMINOUS INTENSITY $I_V$ | | | | EMISSION SPECTRUM | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Peak Emission Wavelength $\lambda_p$ | | | $\Delta\lambda$ | Dominant Wavelength $\lambda_d$ | | | $I_F$ |
| | MIN | TYP. | MAX | $I_F$ | MIN | TYP. | MAX | TYP. | MIN | TYP. | MAX | |
| TLSU1008A | 27.2 | 60 | — | 20 | — | 636 | — | 18 | — | 623 | — | 20 |
| TLOU1008A | 27.2 | 78 | — | 20 | — | 612 | — | 15 | — | 605 | — | 20 |
| TLAU1008A | 8.5 | 30 | — | 20 | — | 596 | — | 13 | — | 592 | — | 20 |
| TLYU1008A | 8.5 | 30 | — | 20 | — | 590 | — | 13 | — | 587 | — | 20 |
| TLGU1008A | 8.5 | 30 | — | 20 | — | 574 | — | 11 | — | 571 | — | 20 |
| TLPGU1008A | 1.53 | 6 | — | 20 | — | 562 | — | 11 | — | 558 | — | 20 |
| UNIT | mcd | | | mA | nm | | | nm | nm | | | mA |

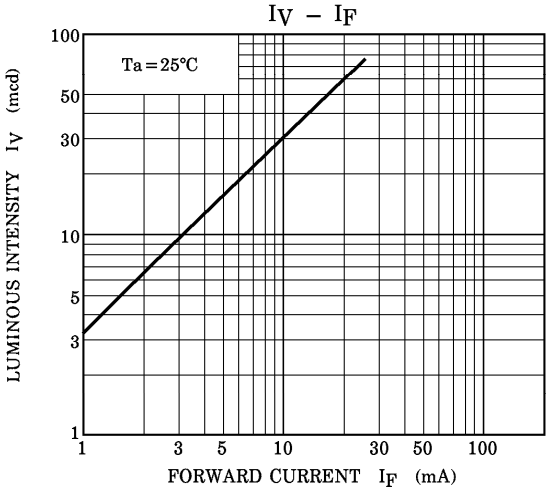
(Note) : This visible LED lamp also emits some IR light.
If a photodetector is located near the LED lamp, please ensure that it will not be affected by this IR light.

TLSU1008A-1

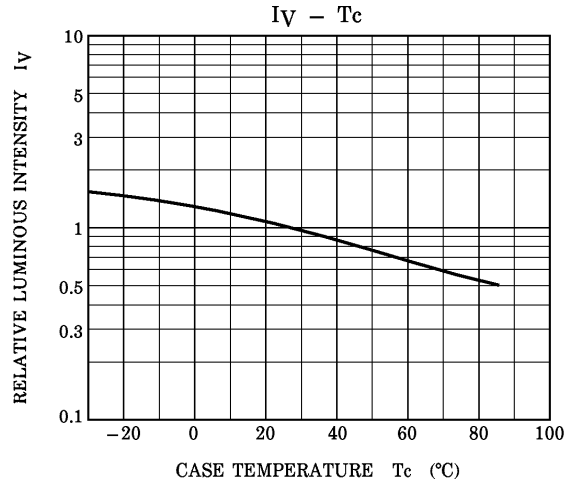
$I_F - V_F$



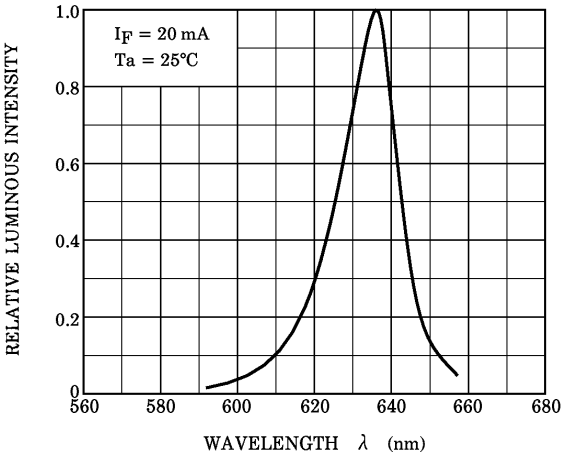

$I_V - I_F$



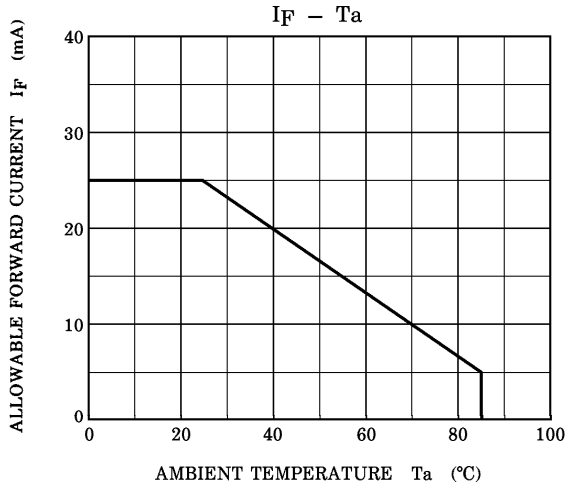

$I_V - Tc$




RELATIVE LUMINOUS INTENSITY − WAVELENGTH



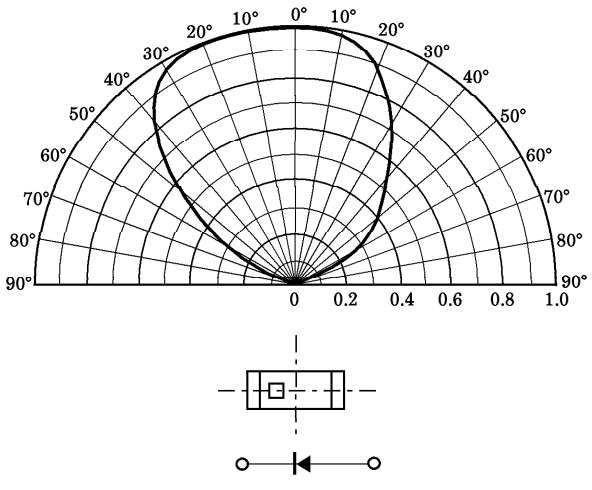

$I_F - Ta$

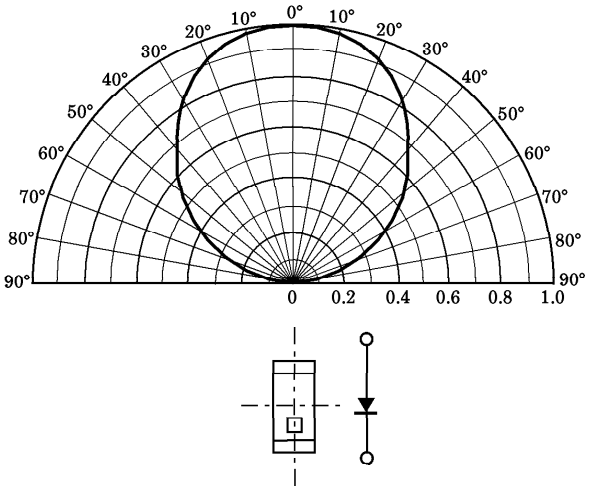


TLSU1008A-2

[RADIATION PATTERN]

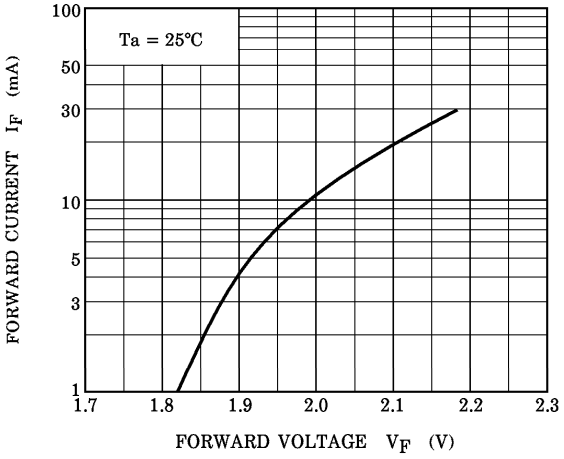
Ta = 25℃



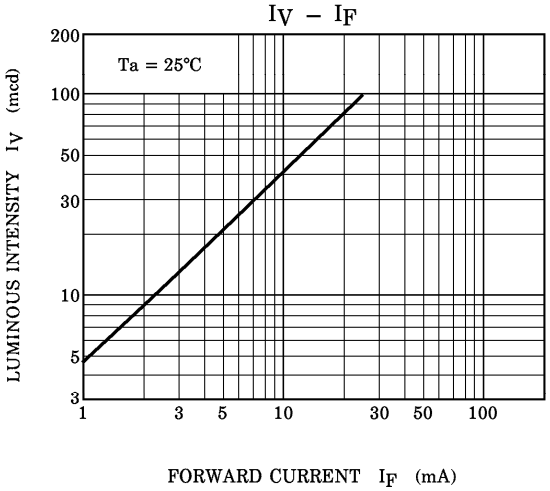



TLOU1008A-1

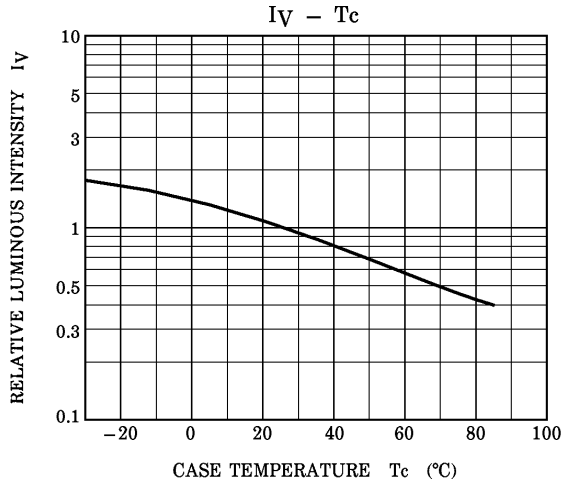
$I_F - V_F$



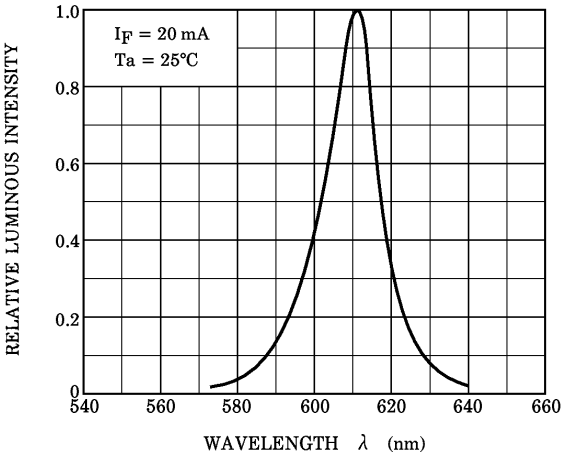

$I_V - I_F$



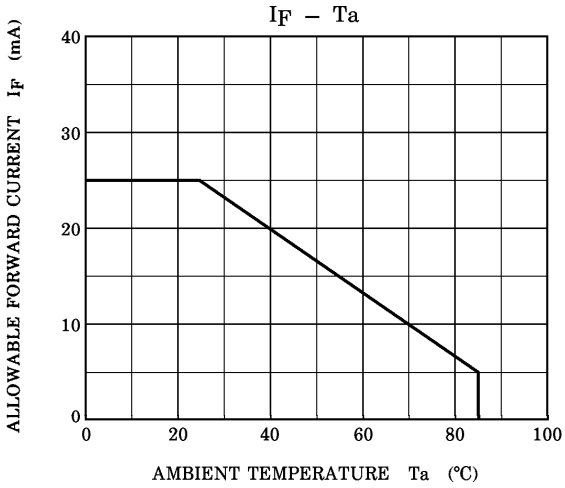

$I_V - Tc$




RELATIVE LUMINOUS INTENSITY − WAVELENGTH



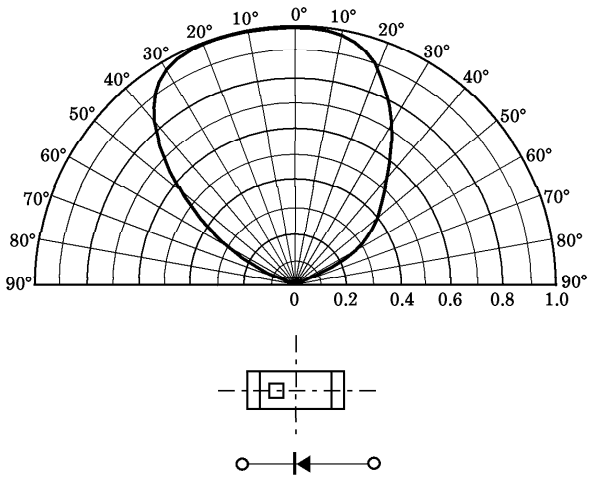

$I_F - Ta$

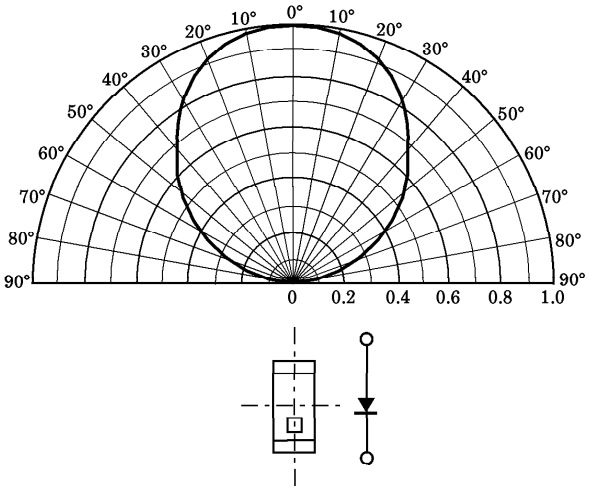


TLOU1008A-2

[RADIATION PATTERN]

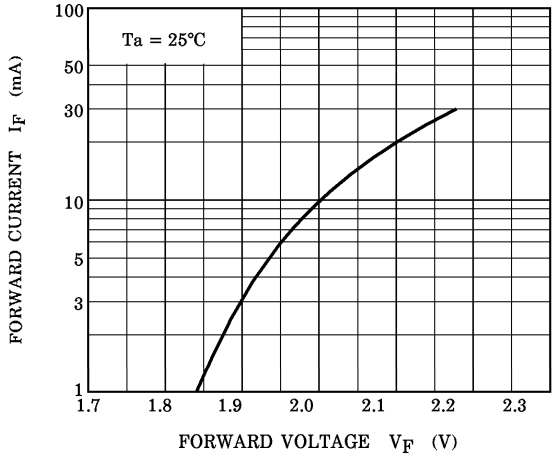
Ta = 25℃



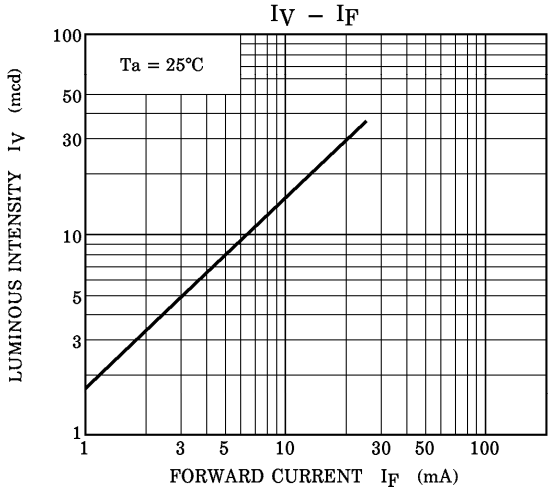



TLAU1008A-1

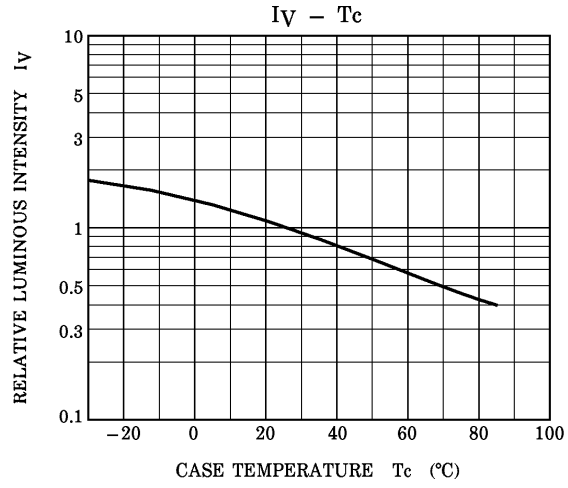
$I_F - V_F$



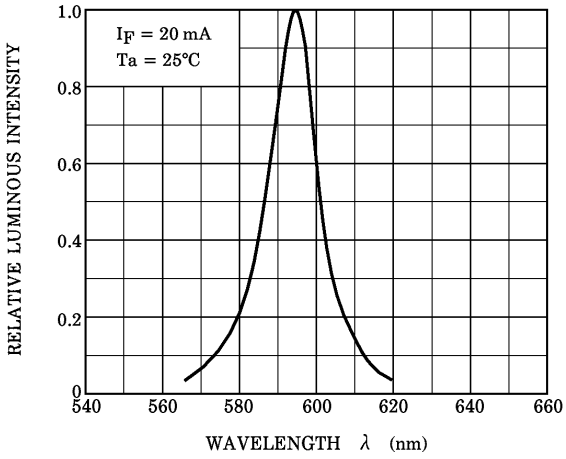

$I_V - I_F$



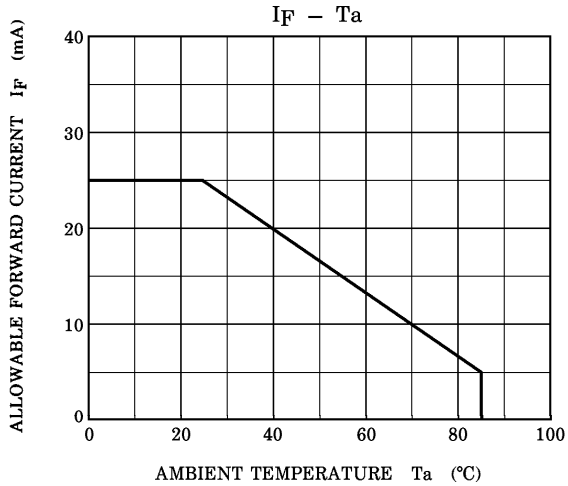

$I_V - Tc$




RELATIVE LUMINOUS INTENSITY − WAVELENGTH



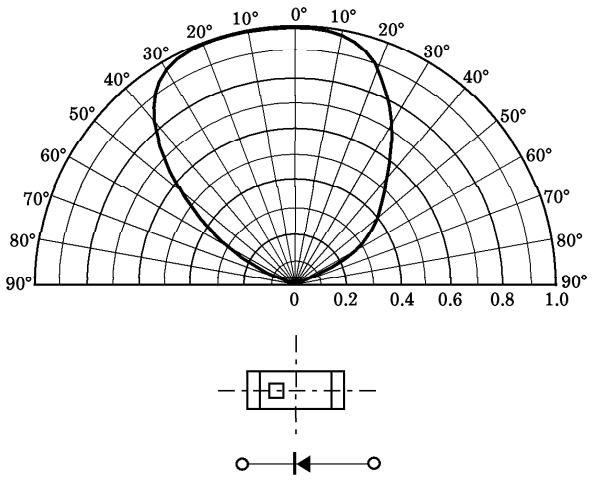

$I_F - Ta$

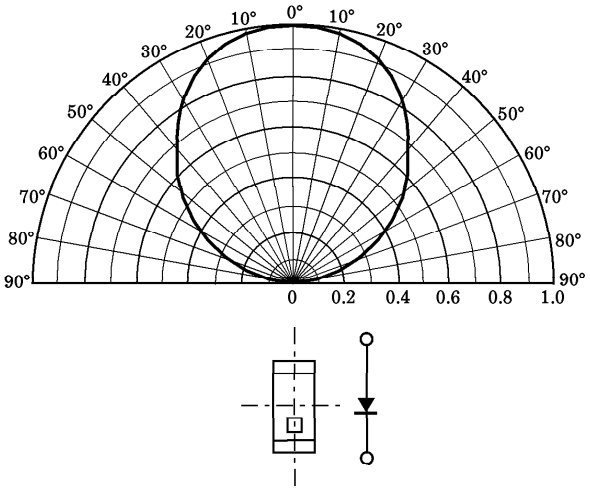


TLAU1008A-2

[RADIATION PATTERN]

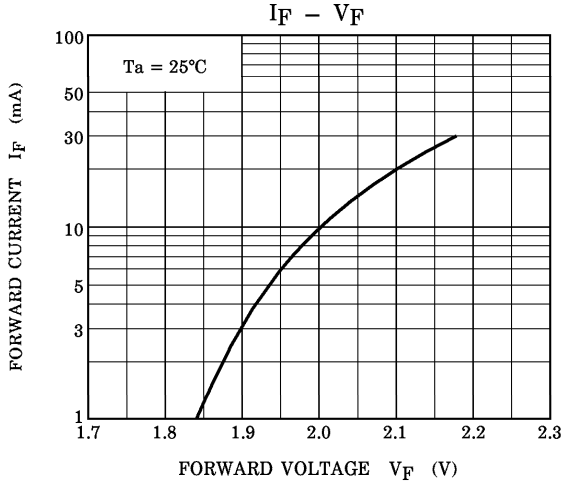
Ta = 25°C



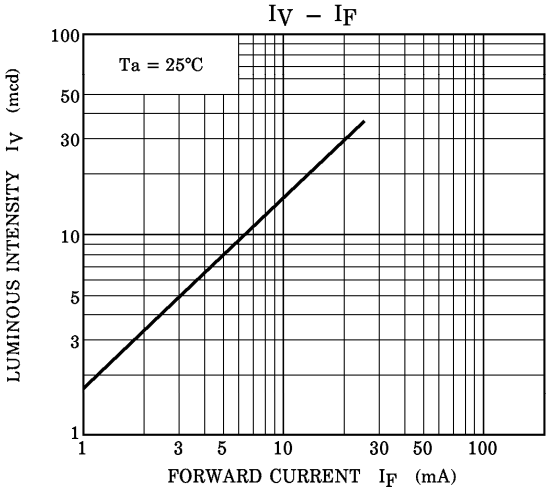



TLYU1008A-1

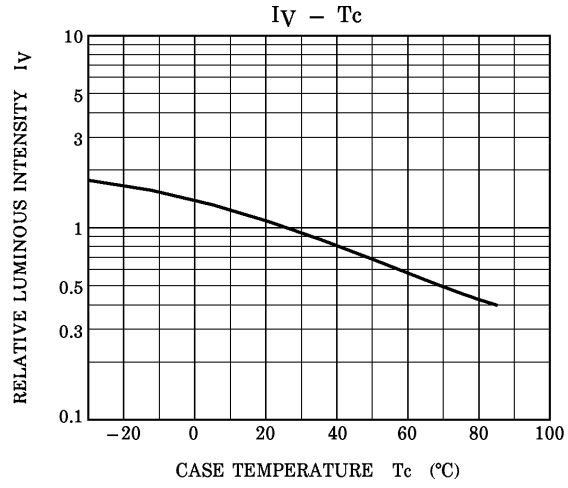
$I_F - V_F$



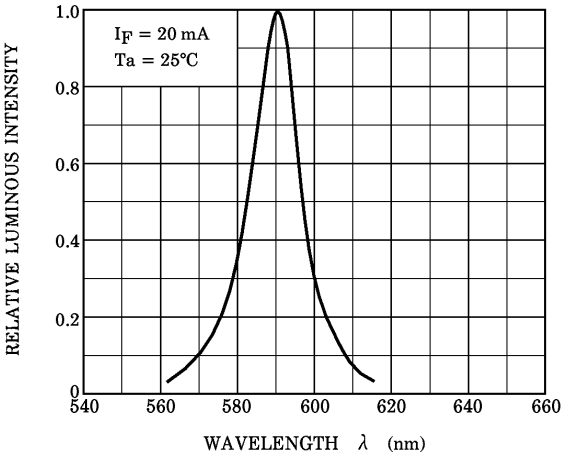

$I_V - I_F$



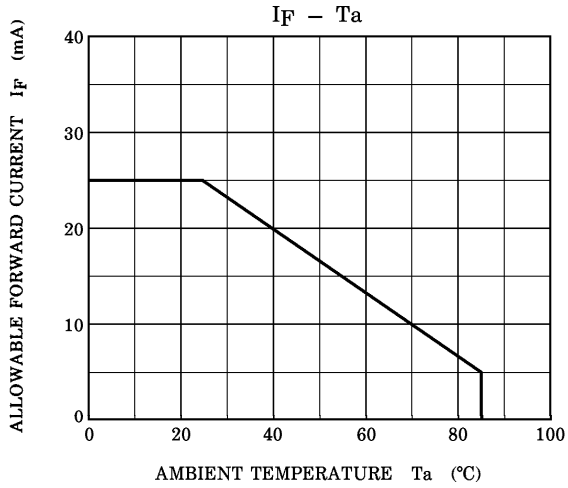

$I_V - Tc$




RELATIVE LUMINOUS INTENSITY − WAVELENGTH



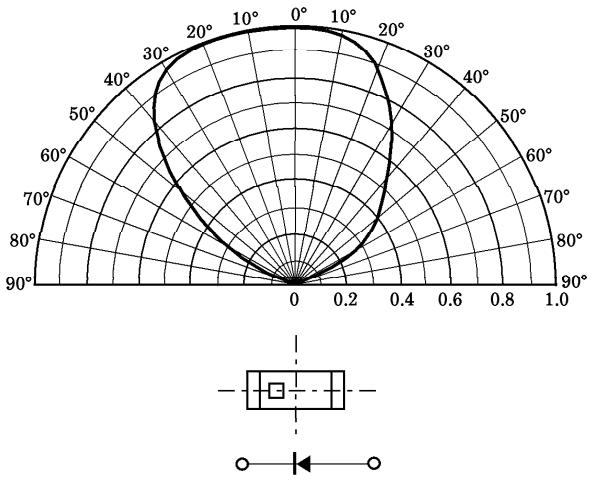

$I_F - Ta$

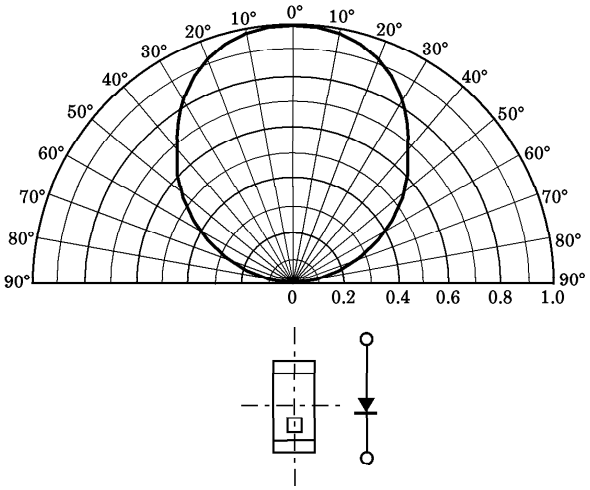


TLYU1008A-2

[RADIATION PATTERN]

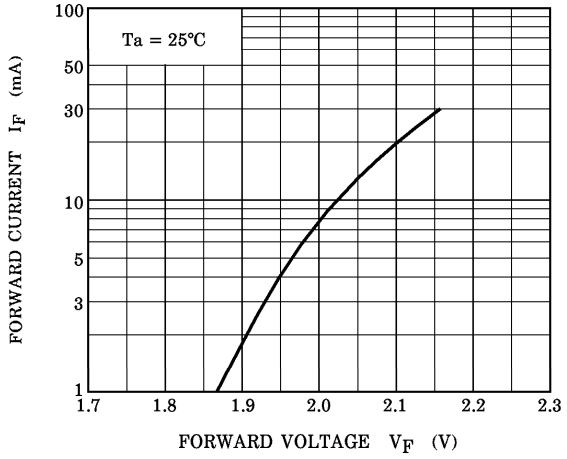
Ta = 25℃



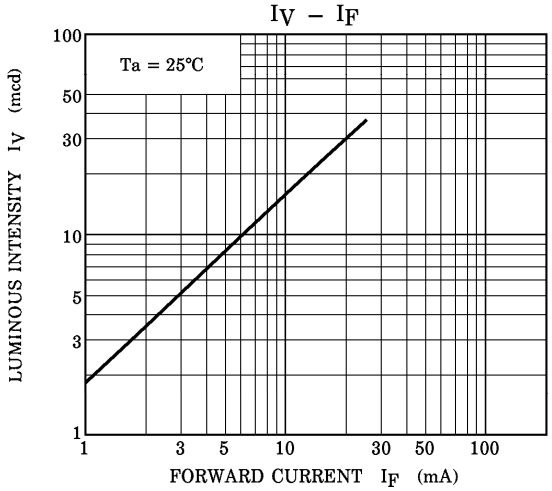



TLGU1008A-1

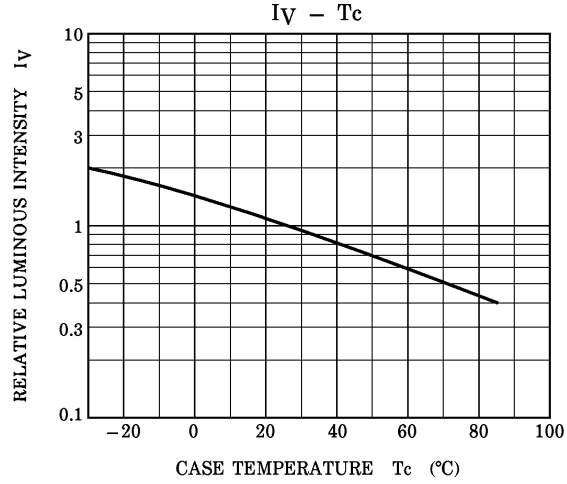
$I_F - V_F$



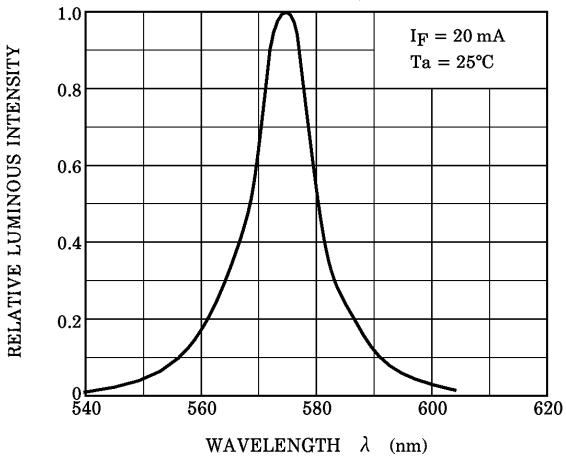

$I_V - I_F$



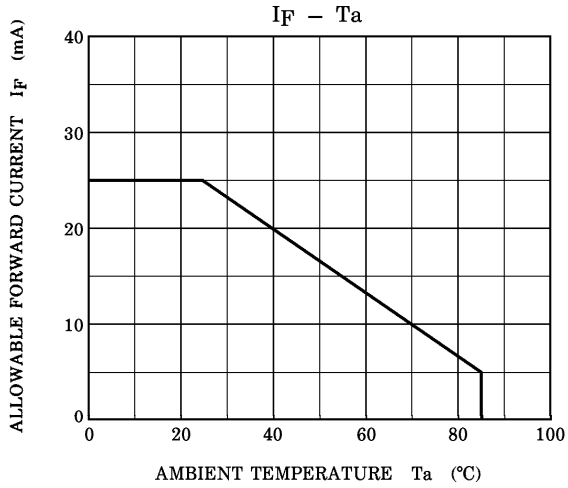

$I_V - Tc$




RELATIVE LUMINOUS INTENSITY − WAVELENGTH



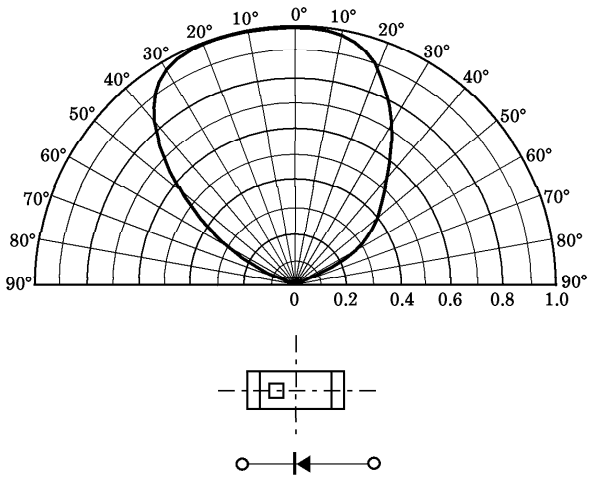

$I_F - Ta$

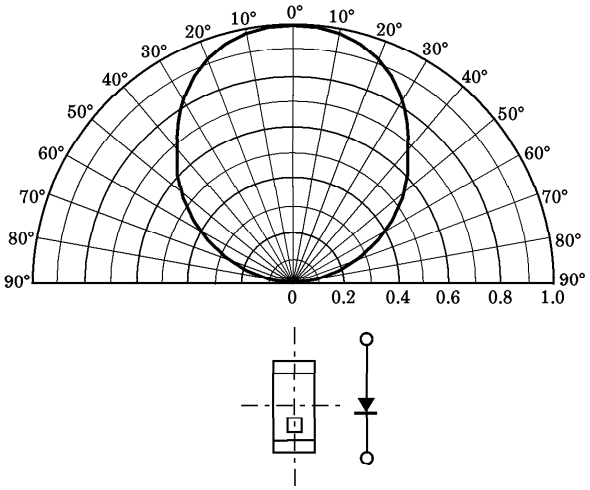


TLGU1008A-2

[RADIATION PATTERN]

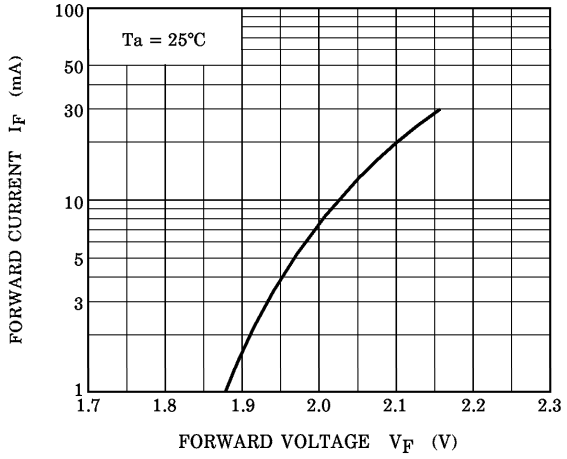
Ta = 25℃



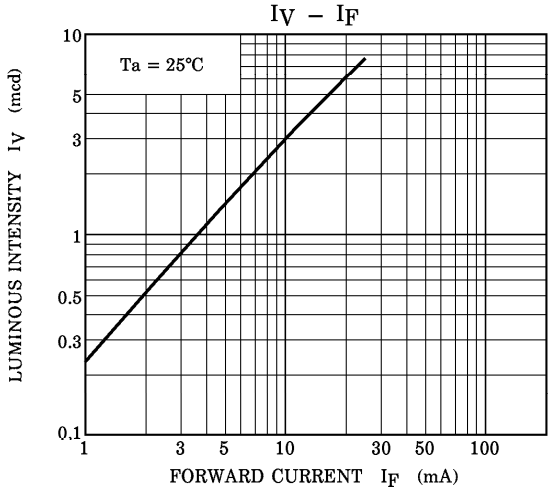



TLPGU1008A-1

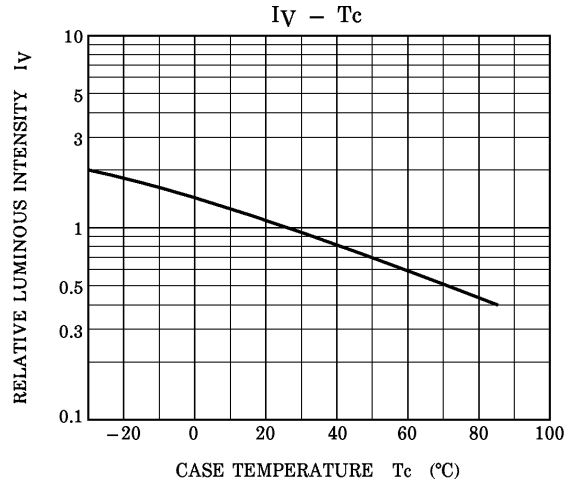
$I_F - V_F$



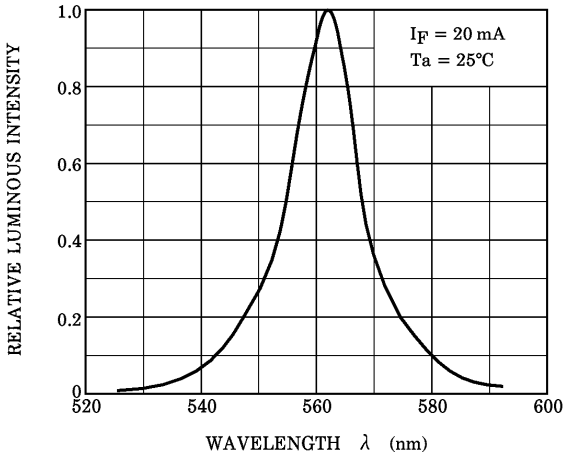

$I_V - I_F$



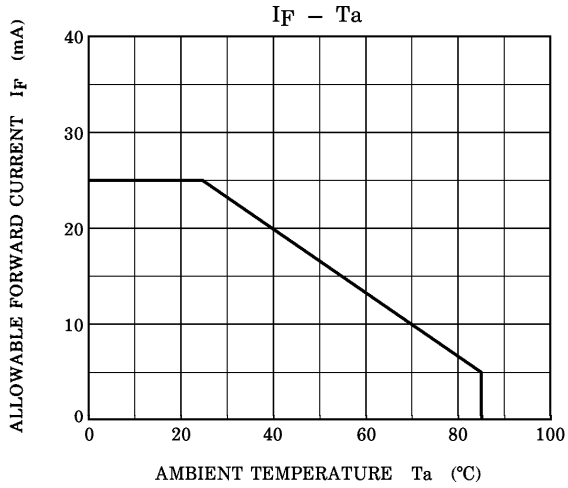

$I_V - Tc$




RELATIVE LUMINOUS INTENSITY − WAVELENGTH



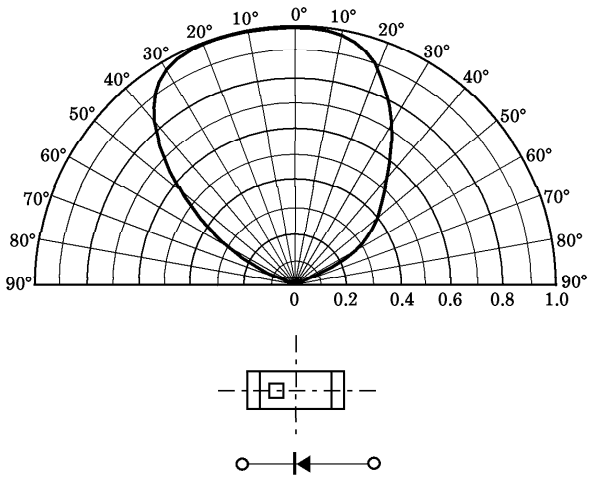

$I_F - Ta$

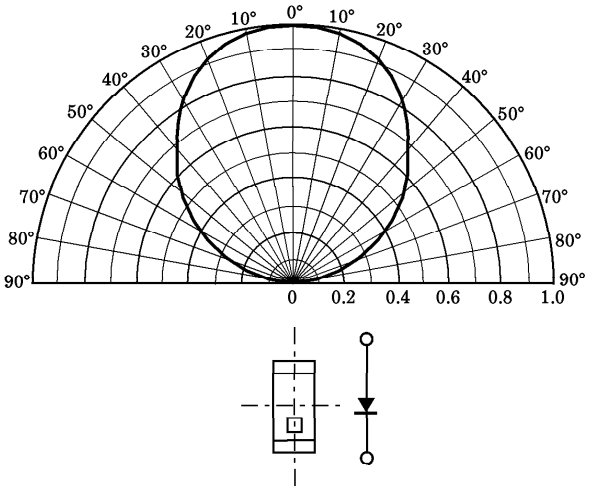


TLPGU1008A-2

[RADIATION PATTERN]

Ta = 25°C



## PACKAGING

The LED devices are packed in an aluminum envelope with silica-gel to avoid moisture absorption. The optical characteristics may be affected by exposure to moisture in the air prior to soldering and it should be stored under the following condition is recommended.

| | |
|---|---|
| Temperature | : 5~30°C |
| Relative Humidity | : 60% or lower |
| Time | : 168 h max |

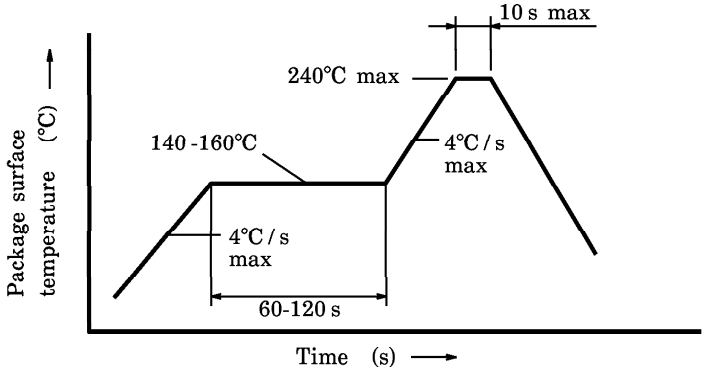
Baking is required if the device have been stored unopened for more than 6 months or if the aluminum envelope has been opened for more than 168 h.
Recommended baking condition is 60°C for 12 h minimum in the dry atmosphere.

## MOUNTING METHOD

### SOLDERING

- Reflow soldering

  Temperature profile

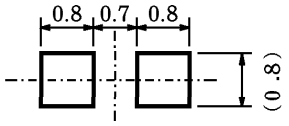



- Please perform the first reflow soldering within 168 h after opening the package with reference to the above temperature profile.
- Second time reflow soldering

  In case of second reflow soldering, it should be performed within 168 h after first reflow under the above conditions.
  Storage conditions before second reflow soldering : 30°C, 60% RH or lower
- Do not perform flow soldering.
- Make any necessary soldering corrections manually.
  (Do not do this more than once for any given pin.)

  | | |
  |---|---|
  | Soldering iron | : 25 W |
  | Temperature | : no more than 300°C |
  | Time | : within 3 s |

- Recommended soldering pattern




Unit in mm

POST SOLDER CLEANING

When cleaning after soldering is needed, the following condition must be adhered to.

Cleaning solvents : AK225 or Alcohol
Temperature : 50°C (max) for 30 s (max) or 30°C (max) for 3 minutes (max)
Ultrasonic : 300 W max

PRECAUTION FOR MOUNTING

Do not apply force to the plastic part of the LED in high temperature conditions.
Do not apply friction using a hard materials for avoid injuring the plastic part of the LED.
Keep the LED away from any other parts when assembling boards into the set.

TAPING SPECIFICATIONS

This specification lays out the 4 mm pitch embossed-tape packing requirements for 1.6 mm (L) × 0.8 mm (W) × 0.6 mm (H) size surface-mount LED lamp.

1. Product Naming System

The type of package used for shipment is denoted by a symbol suffix after the product number. The method of classification is as below. (this method, however does not apply to products whose electrical characteristics differ from standard Toshiba specifications)

(1) Tape Type : T05 (2 mm pitch)

(2) Example

TLSU1008A (T05)

Tape Type
Toshiba Product No.

2. Related Matter

(1) Electro-optical Characteristics

Please refer to the each technical datasheet for electro-optical characteristics of tape packed products.

(2) Handling Precautions

Tape material protected against static electricity. However, static electricity may occur depending on quantity of charged static electricity and a device may attach to a tape, or a device may be unstable when peeling a tape cover.

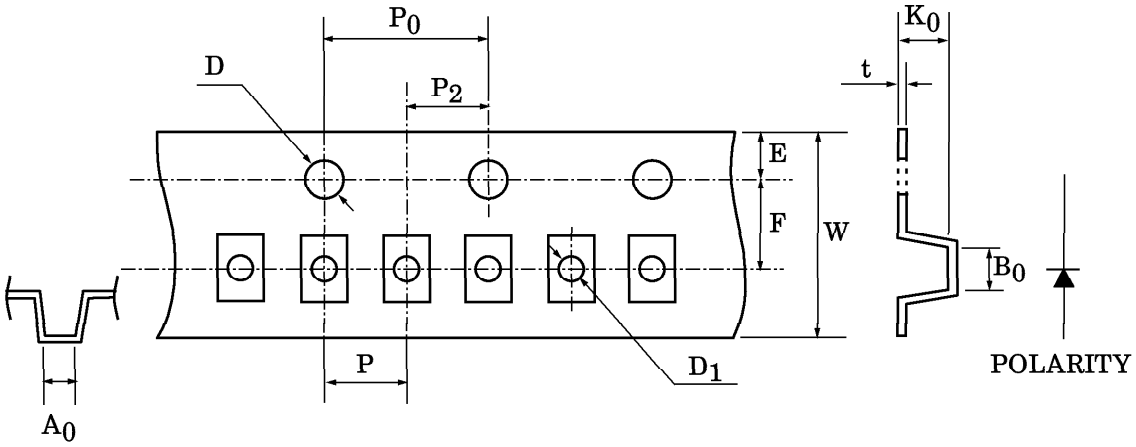
a) In process, taping materials may sustain an electrostatic charge, use an ionizer to neutralize the ions.

b) For transport and temporary storage of devices, use containers (boxes, jigs, bags) that are made of anti-static materials or of materials that dissipate electrostatic electricity.

3. Tape Dimensions

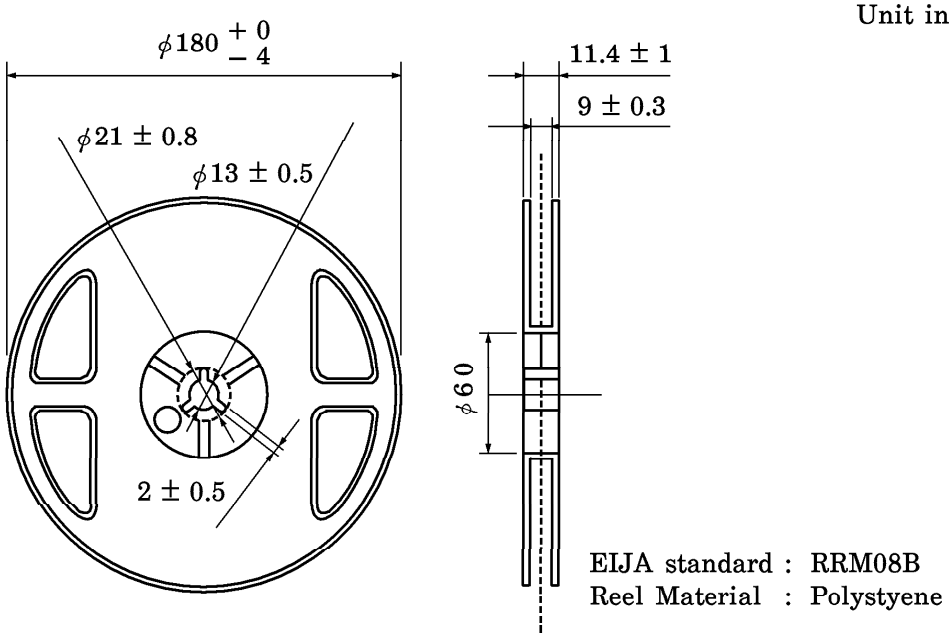
(Unit in mm)

| SYMBOL | DIMENSION | TOLERANCE | SYMBOL | DIMENSION | TOLERANCE |
|---|---|---|---|---|---|
| D | 1.50 | +0.1 / −0 | $P_2$ | 2.00 | ±0.05 |
| E | 1.75 | ±0.1 | W | 8.00 | ±0.1 |
| $P_0$ | 4.00 | ±0.1 | P | 2.00 | ±0.1 |
| t | 0.20 | ±0.05 | $A_0$ | 0.90 | ±0.1 |
| F | 3.50 | ±0.05 | $B_0$ | 1.75 | ±0.1 |
| $D_1$ | 0.60 | ±0.05 | $K_0$ | 0.75 | ±0.1 |



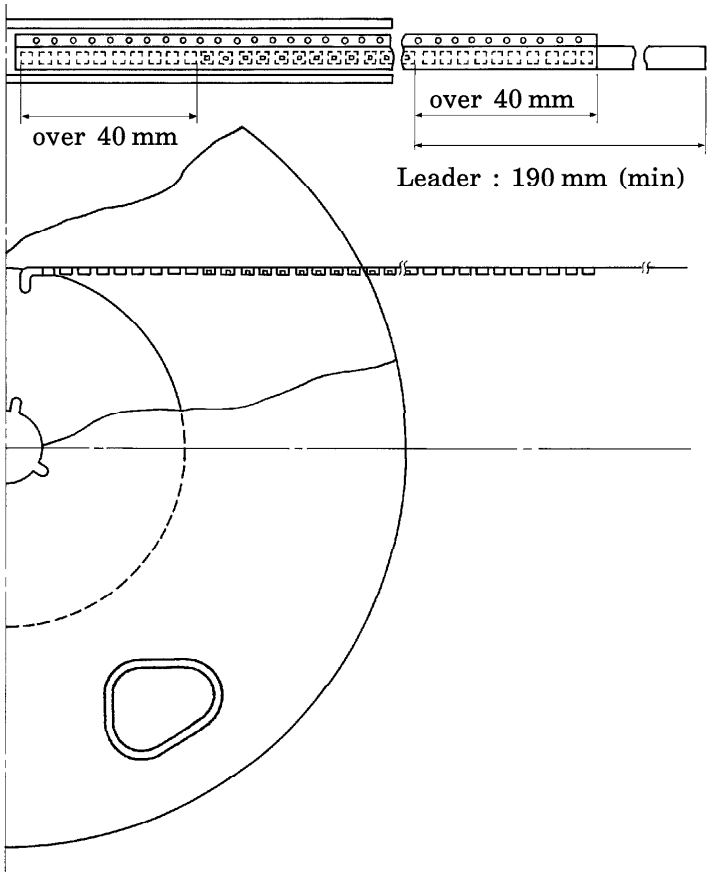
4. Reel Dimensions

Unit in mm




EIJA standard : RRM08B
Reel Material : Polystyene

5. Leader and Trailer



6. Packing Form

(1) Number of Devices per Reel and Carton

| | |
|---|---|
| Reel | 8000 devices |
| Carton | 40000 devices |

(2) Packing : Silica gel and reel are packed into sealed aluminum pack.

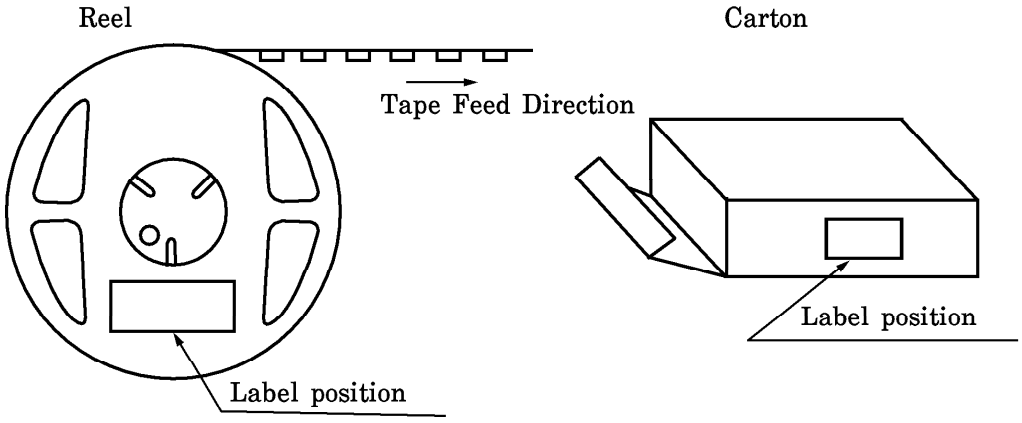
7. Notation Method

(1) Example : TLSU1008A (T05)

P/N :

| | | | |
|---|---|---|---|
| TYPE | TLSU1008A | | |
| ADD. C | (T05) | Q'TY | 8000 pcs |
| NOTE | (rank symbol) | | Lot Number |

(2) Label location :




Aluminum pack : Attached to center of one side